

REMARKS/ARGUMENTS

Claims 1-3 and 5-11 remain in the application. Claim 1 has been amended by incorporating therein the subject matter of claim 4. Claim 4 has been canceled.

Claim Rejections – 35 USC §102

Claims 1-3 and 8-11 stand rejected under 35 USC §102(b) as anticipated by or, in the alternative, under 35 USC §103(a) as obvious over JP 07-060816 ("JP '816").

JP'816 discloses a multilayer foamed sheet formed by coextrusion by "bringing a finely foamed sheet 2 into contact with at least one surface of a highly foamed sheet 1." (Abstract, page 1). The "expansion ratio of the sheet 1 is preferably 1.2-5 times, and an expansion ratio of the sheet 2 is preferably 1.01-1.1 times." (Abstract, page 1). JP '816 is silent, however, as to the flexural modulus of the particular resins used to form the finely foamed sheet 2 and the finely foamed sheet 1. Thus, while JP '816 discloses that the two foamed sheets 1 and 2 bonded together have different expansion ratios, the JP reference does not disclose that the two sheets are formed from "two polypropylene resins having different flexural modulus" as recited in claim 1.

In addition, JP '816 does not teach or suggest a "substantially unfoamed layer [] positioned between the two foam polypropylene layers" as recited in claim 4. Instead, JP '816 discloses a nonfoamed sheet 3 adhered to foamed sheet 1 on the surface opposite that to which foamed sheet 2 is adhered. (Abstract, page 1; also, drawing figure C.) The subject matter of claim 4 has now been incorporated into claim 1 by amendment as indicated above.

Accordingly, JP '816 does not anticipate nor render obvious claim 1 as now presented, nor the claims that depend therefrom.

Claims 1-4 and 8-11 stand rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under 35 USC §103(a) as obvious over Harayama (US 4,721,643).

Harayama discloses a laminated structure composed of two cured foamed sheets melt-adhered to each other through a heat-fused layer, and two non-foamed surface skin layers laminated to opposing surfaces of the cured foam sheets via extrusion lamination (col. 5, lines 25-52). The two foam/non-foam extrusion-laminated sheets are then bonded together by arranging the two sheets with the non-laminated (foam) surfaces facing each other, and then using a heat-melting means and bonding rolls to bond the two sheets together via a non-foamed or lowly foamed heat-fused layer (paragraph bridging cols. 3-4; col. 5, lines 53-61). This method of bonding is called the "melt-bonding method" (col. 5, lines 61-64).

In contrast, the presently claimed sheet is "co-extruded," as clearly recited in claim 1. With the additional subject matter of claim 4 now incorporated into claim 1, the entire 'foam/unfoamed/foam' sheet is coextruded (see, e.g., Example 1). The unfoamed middle layer is not formed by the 'melt-bonding method' as taught in Harayama. Instead, it is coextruded with the two foam layers. Thus, while the coextruded nonfoam layer of the claimed sheet is a discrete, uniformly non-foamed layer, the melt-bonded layer of Harayama, which is formed from the foam sheets, is not a discrete layer but instead represents a gradation of highly foamed to fairly foamed to slightly foamed to solid portions (at the center). The melt-bonded layer of Harayama thus would not accommodate any functional layers, as does the claimed nonfoamed

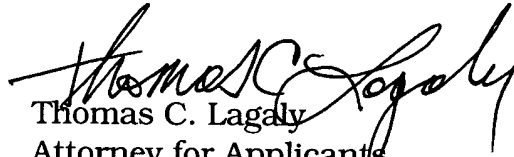
layer of the present invention. Accordingly, the claims as now presented are patentably distinct from Harayama.

Moreover, the presently-claimed invention specifies that the two sheets are formed from "two polypropylene resins having different flexural modulus." This feature is neither taught nor suggested in Harayama, which teaches only that the two foamed sheets may have different expansion ratios. While this may or may not affect the flexural modulus of such sheets, this has nothing to do with Applicants' invention, which employs two different polypropylene resins, each having a different flexural modulus. Accordingly, Applicants respectfully submit that the claims as now presented are inventive over Harayama for this additional reason.

Finally, Applicants acknowledge with gratitude the indication of allowable subject matter in claims 5-7. For all of the reasons set forth above, however, Applicants respectfully submit that the sub-combination of claims 1 and 4, as presented herein as amended claim 1, defines patentable subject matter, and asks that such claim be allowed.

Accordingly, Applicants submit that none of the cited references teaches or suggests Applicants claimed thermoformable, co-extruded sheet comprising at least two separate foam polypropylene layers formed from two different resins having different flexural modulus, with a nonfoamed layer therebetween. Such a combination has been found to provide a desired balance between thermoformability and stiffness (see page 2 lines 5-7 and lines 16-19), which is neither taught nor suggested in the cited references. Applicants therefore submit that the claims as now presented are patentably distinct from the references of record and in condition for allowance. A Notice of Allowance is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Thomas C. Lagaly", written over the printed name.

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